

PATENT CLAIMS

1. Impregnated paper with a high penetration resistance to fats and oils characterised in that it is produced from strongly beaten pulps with a degree of beating of 15 °SR to 90 °SR, internal sized with alkenyl succinic anhydride and/or alkyl ketene dimers (AKD) and/or resin sizes and treated with an impregnating liquor which contains a binder system of 80 to 100 parts by mass of water-soluble binders and 20 to 0 parts by mass of water-insoluble polymers in dispersion.
2. Paper according to claim 1 characterised in that it contains 0.05 to 0.3 mass percent of alkenyl succinic anhydride for internal sizing.
3. Paper according to claim 1 or 2 characterised in that the polymers in dispersion are selected from the group comprising polyacrylonitriles, polyacrylates, polyvinyl acetates and polystyrene-polyacrylate copolymers.
4. Paper according to claim 1 to 3 characterised in that the water-soluble binders are selected from the group comprising polyvinyl alcohols, ethylene-vinyl alcohol copolymers, acetalised ethylene-vinyl alcohol copolymers, acetalised polyvinyl alcohols, polyvinyl butyrals, cationically modified polyvinyl alcohols containing silanol groups, acetalised cationically modified polyvinyl alcohols containing acetalised silanol groups, polyvinyl alcohols containing carboxyl groups, gelatin, galactomannans, alginates, carboxymethylcellulose and starches, including mixtures thereof.

5. Paper according to claim 4 characterised in that the water-soluble binders comprise polyvinyl alcohol and gelatin.
6. Paper according to claim 5 characterised in that the gelatin has a surface tension of less than 42 mN/m measured as an 0.1 percent solution at 24°C.
7. Paper according to claim 5 and 6 characterised in that the water-soluble binders additionally comprise at least one polyvinyl alcohol containing carboxyl groups and/or at least one compound from the group of ethylene-vinyl alcohol copolymer, acetalised ethylene-vinyl alcohol copolymer, acetalised polyvinyl alcohol, cationically modified polyvinyl alcohols containing silanol groups, polyvinyl alcohols containing acetalised silanol groups and acetalised carboxyl groups, acetalised cationically modified polyvinyl alcohols and/or polyvinyl butyral.
8. Paper according to one of claims 4 to 7 characterised in that the polyvinyl alcohol is a mixture of at least two types at least one of which exhibits a viscosity of more than and at least a viscosity of less than 35 mPa.s.
9. Paper according to one of the preceding claims characterised in that the impregnating liquor contains a crosslinking agent.
10. Paper according to claim 9 characterised in that the crosslinking agent is glyoxal.
11. Paper according to one of the preceding claims characterised in that the application weight of the impregnating liquor, calculated as dry substance, is 0.3 to 1.5 g/m² per side.

12. Process for the production of a paper comprising the steps
 - production of a raw paper of pulp, mechanical wood pulp or recycled waste paper with a degree of beating of 15 SR to 90 SR with internal sizing with alkenyl succinic anhydride and/or alkyl ketene dimers (ATD) and/or resin sizes and
 - impregnating this paper with an impregnating liquor containing a binder system of 80 to 100 parts by mass of water-soluble binders and 20 to 0 parts by mass of water-insoluble polymers in dispersion.
13. Process according to claim 12 characterised in that the polymers in dispersion are selected from the group comprising polyacrylonitriles, polyacrylates, polyvinyl acetates and polystyrene-polyacrylate copolymers.
14. Process according to claim 12 or 13 characterised in that the water-soluble binders are selected from the group comprising polyvinyl alcohols, ethylene-vinyl alcohol copolymers, polyvinyl butyrals, gelatin, galactomannans, alginates, carboxymethylcellulose and starches, including mixtures thereof.
15. Process according to one of claims 12 to 14 characterised in that the impregnation is carried out in a size press, film press or any other one of the known coating devices.
16. Process according to one of claims 12 to 15 characterised in that the sized raw paper is dried before impregnation to a dry matter content of 95 to 99%.